AD-94/AD-95

Optional AC-to-DC Power Supply

TEAC®

AD-94/AD-95

Optional AC-to-DC Power Supply

TEAC

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WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

1. GENERAL

This TEAC AD-94/AD-95 Series of AC/DC Power Supply units is offered to utilize the Data Recorder designed solely driven with an exclusive DC power for energizing with the commercial AC Main Lines available almost everywhere.
Because of incorporating the coefficient primary winding switching method for regulating voltage control, the series power unit has much less power losses, a compact and lightweight, and produces well stabilized outputs.

**Attached information includes the Installation Precautions, Operating and Maintenance Instructions as the standard attachement to the main body of the Power Supply Unit.

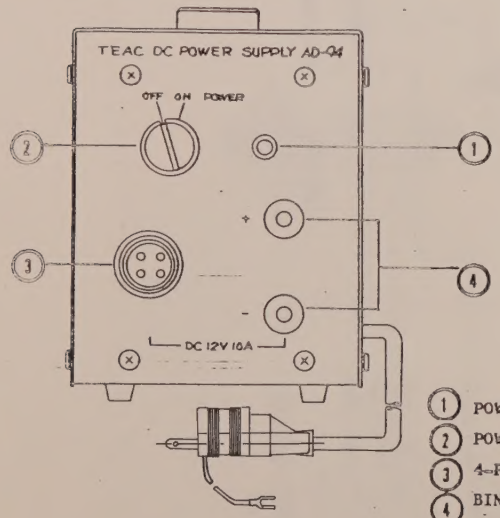
2. RATING & SPECIFICATION

Input voltage	:	90 to 130 VAC, 47 to 63Hz
Output voltage/current	:	AD-94: DC 12V 10A AD-95: DC 12V 20A
Ripple & noise level	:	Less than 100 mV (p-p)
Output voltage accuracy	:	±3%
Output terminal type	:	4P-type output connector or terminal strip type output (either one available).
Auxilliery functions	:	Overload current protection: Operates at 110% of the rated current drawn by output current limiting method. Overvoltage protection: Operates at 15.5V or more.
Operative temperature & relative humidity	:	-10°C to +40°C.
Dimensions & Weight	:	AD-94: 87mm (W) x 271mm (D) x 126mm (H), 2.5kg approx. AD-95: 237mm (W) x 200mm (D) x 126mm (H), 3.7kg approx.

3. OPERATING INSTRUCTIONS

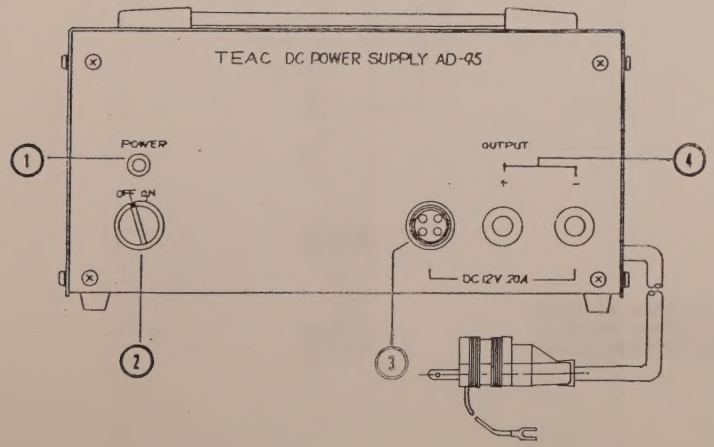
3.1 Control & Function

AD-94 (12V, 10A)



1. POWER-ON INDICATOR LAMP
2. POWER ON/OFF SWITCH (ROTARY TYPE)
3. 4-P TYPE BNC CONNECTOR
4. BINDING POST TERMINALS

AD-95 (12V, 20A)



3.2 Procedures

- To use a binding post type output terminal ④, crip in the attached Power cord (P/N 15921270-00) firmly to the terminals (wire coloured in white is for the positive voltage, black is for negative).
- When using the 4-P type BNC Output connector ③, connect the attached Power cord (P/N 15922265-00).
- Connect the Power cable cord of the AD-94/AD-95 to the Main Lines (AC90~130V according to the specified requirement).
- Upon powered-on by POWER-ON switch ②, Indicator lamp ① lights and DC voltage is outputted.
- Then turn POWER-ON switch on the Front Panel of the Data Recorder.

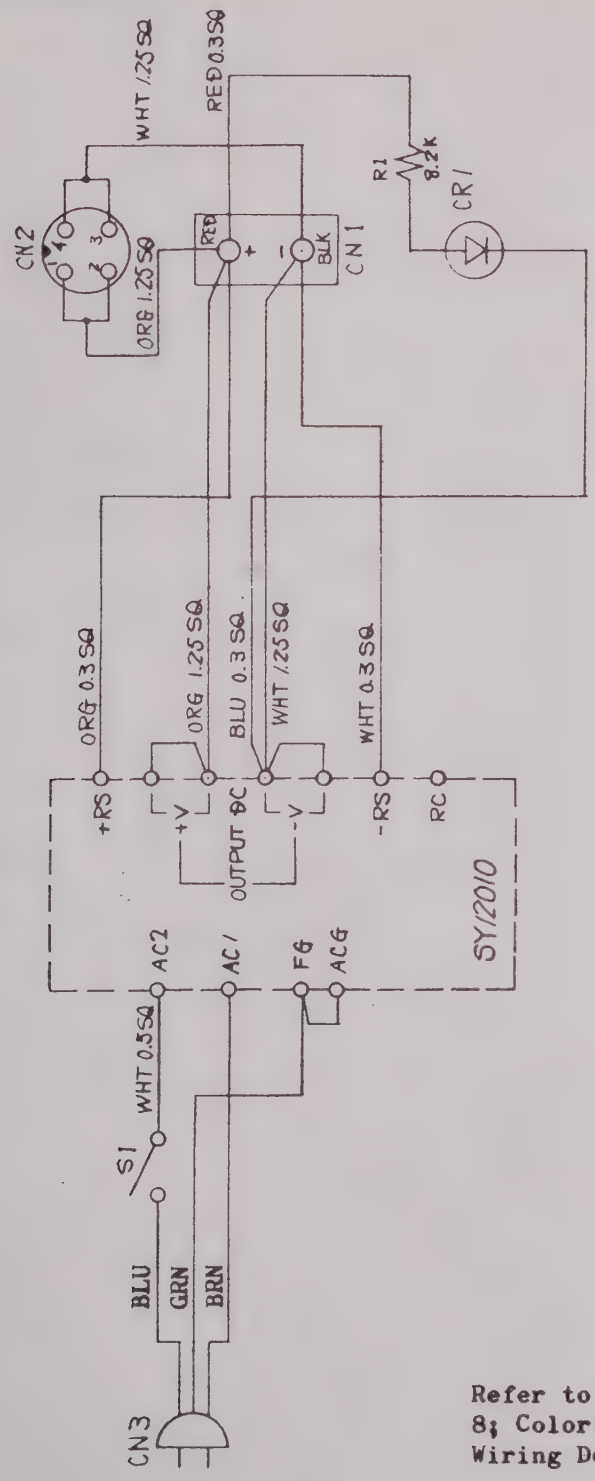
3.3 Precautions to Operation

- In order to avoid voltage drop during the unit in operation, the power cord for the recorder should always be used the specified one of P/N 15921270-00 or P/N 15922265-00.
- Do not short directly accross the output terminal ends of the unit.
- If the reversed polarity connection from the terminals occured, this will cause to fail to power-on to the data recorder because protecting for irregularities. Refer also to the Operating Instructions of the Data Recorder.
- If the output current drawn excessively, the output voltage will drop by means of activating the protection circuit.
- Do not use together the binding-post type output terminal ④ and the 4-P type BNC connector at the same time to avoid overloading.
- When an irregular operation such as overloading resulting to voltage drop, hold to remove the power from the system until the cause of trouble is remedied.
- When no output voltage is present with applying an AC from the Main Lines to the unit without connection to the recorder, check carefully before retrying retrying to power-on, since it may have a sort of troubles inside the unit.

4. MAINTENANCE INFORMATION
(Drawing & Parts List)

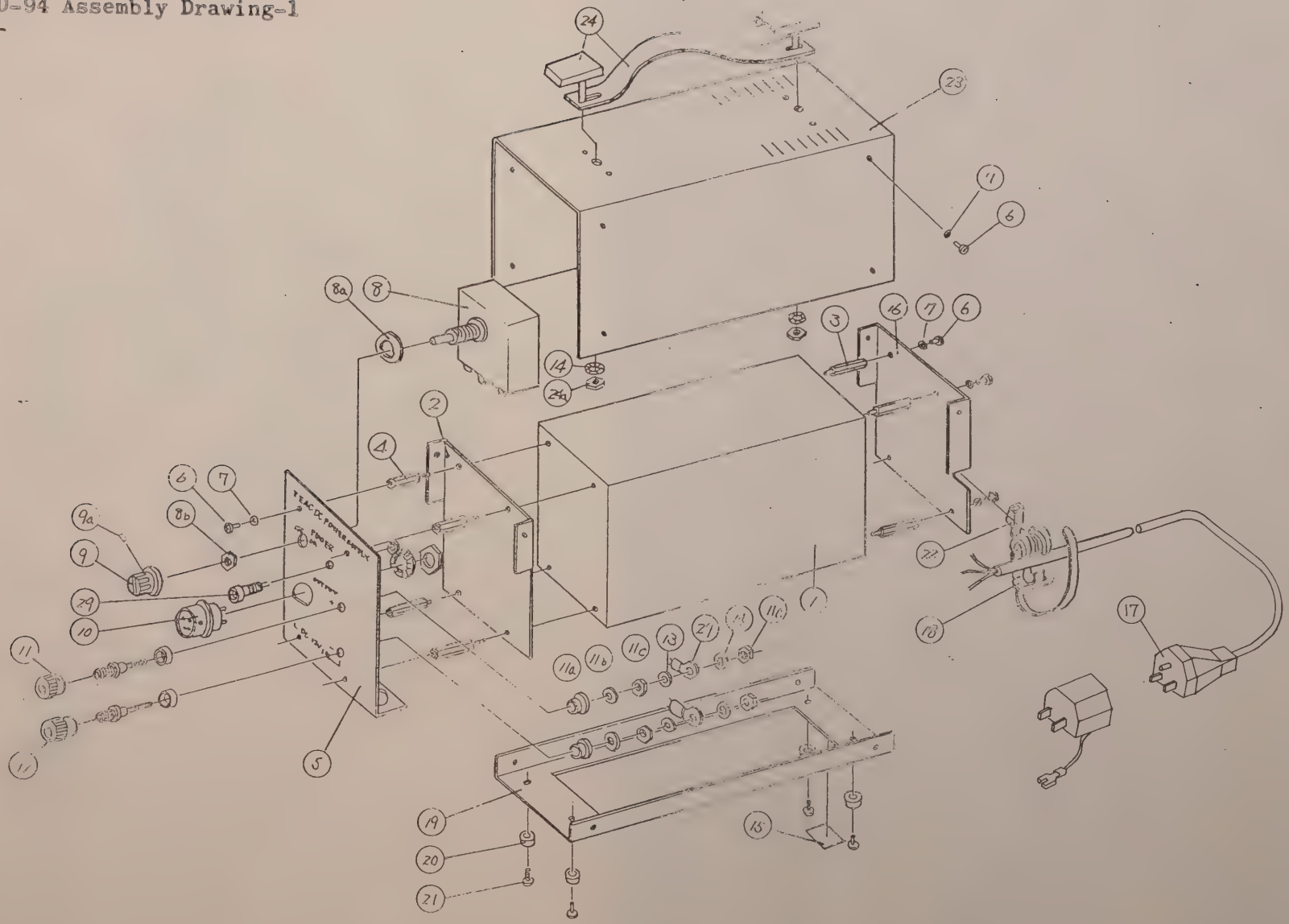
4.1 AD-94 Power Unit (Output: DC 12V, 10A)

4.1.1 AD-94 Schematic

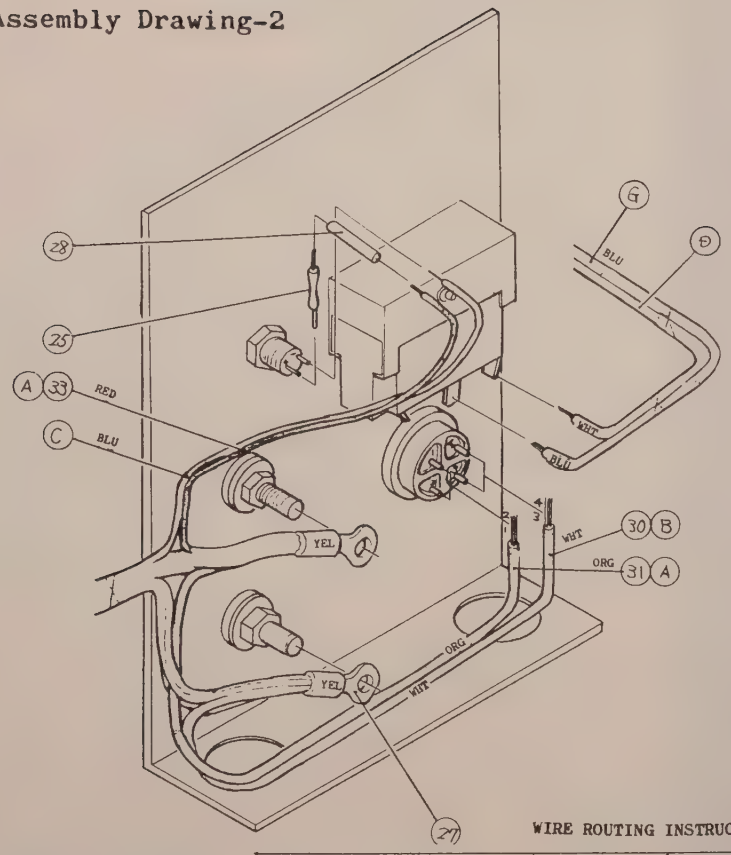


Refer to pages 7 & 8; Color coding & Wiring Destinations

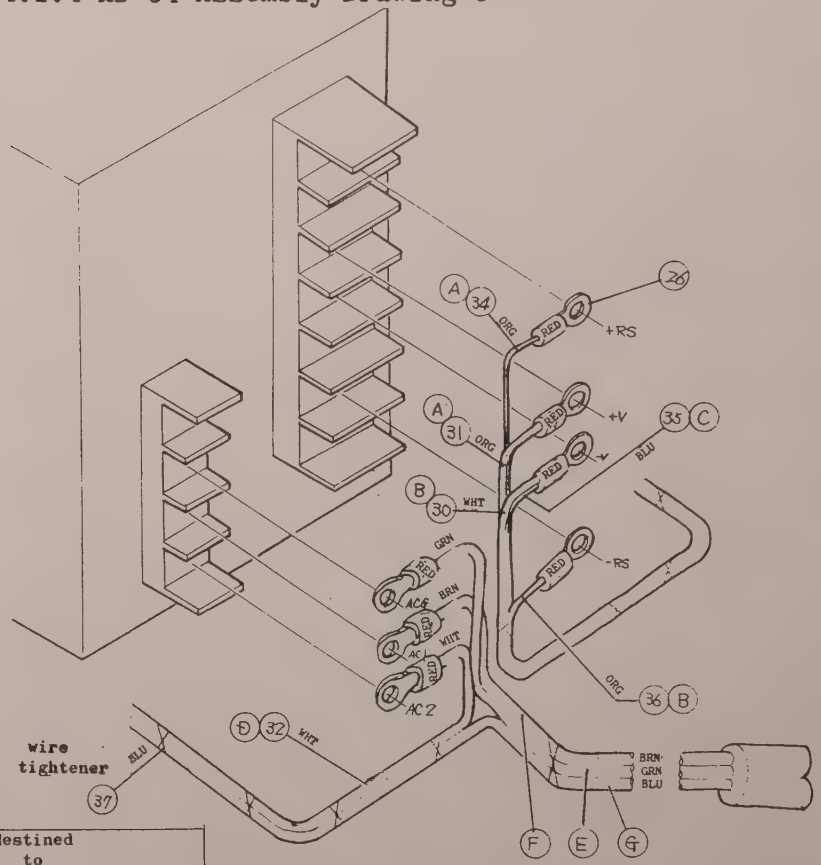
4.1.2 AD-94 Assembly Drawing-1



4.1.3 AD-94 Assembly Drawing-2



4.1.4 AD-94 Assembly Drawing-3



WIRE ROUTING INSTRUCTIONS

Coded Colour defines:

BLK	Black
BRN	Brown
RED	Red
ORG	Orange
YEL	Yellow
GRN	Green
BLU	Blue
VIO	Violette
WHT	White

wire idnt	originated from	wire diam.	coded color	destined to
A	OUTPUT +	50/0.18	ORG	+V of POWER BRD (lower portion)
		50/0.18	ORG	#1,2 of OUTPUT connector
		0.3SQ	ORG	+RS, POWER BRD
		0.3SQ	RED	LED + via a resistor
B	OUTPUT -	50/0.18	WHT	#3,4 of OUTPUT connector
		0.3SQ	WHT	-RS, POWER BRD
		50/0.18	WHT	-V, POWER BRD
C	LED -	0.3SQ	BLU	
D	POWER SWITCH	0.5SQ	WHT	AC2, POWER BRD
E	POWER CABLE		GRN	ACG, POWER BRD
F			BRN	AC1, POWER BRD
G			BLU	POWER SWITCH

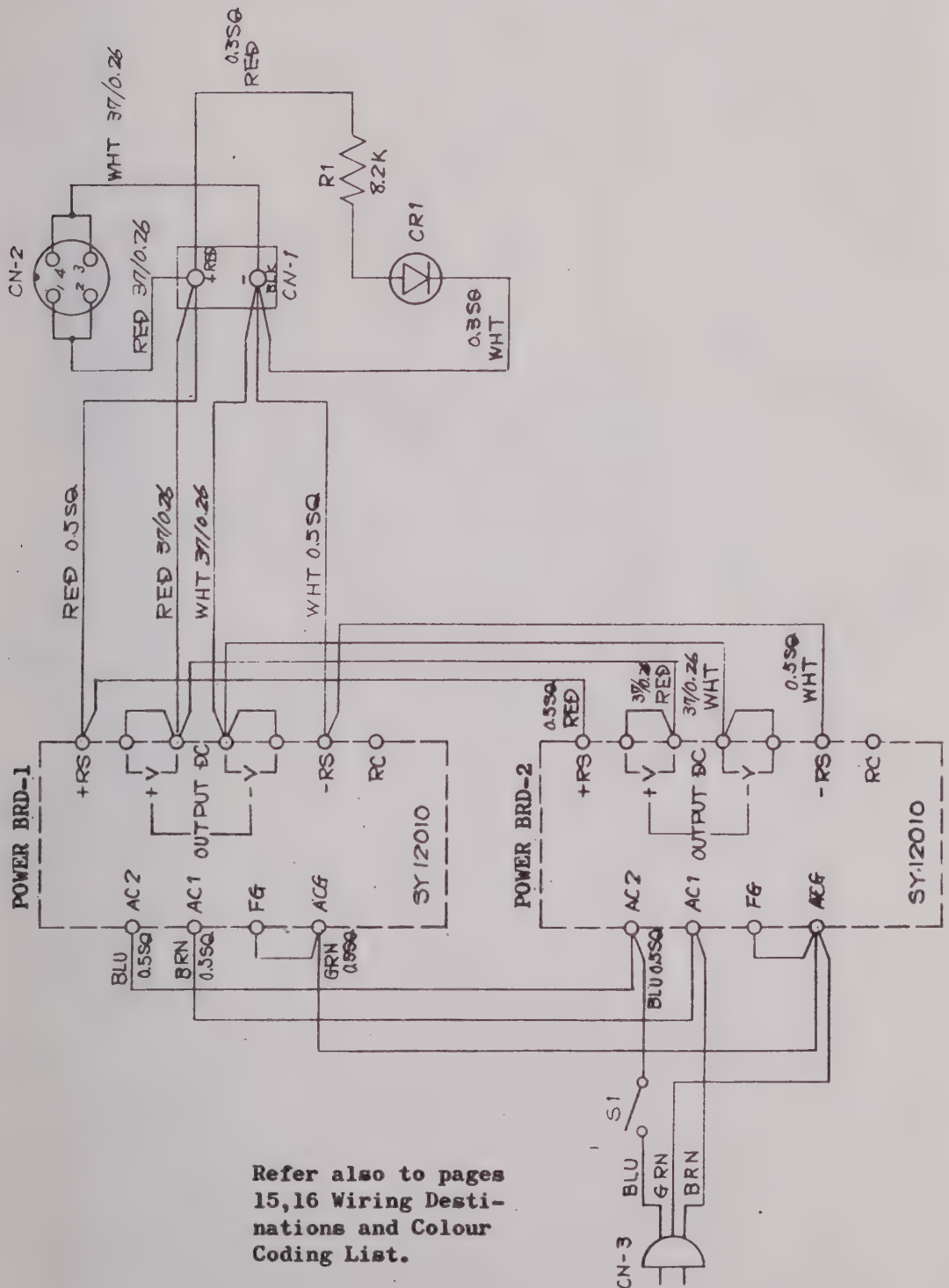
*) Ordering for this should always be made as an assembly unit since its internal servicing must be done by TEAC Authorized Factory to meet the specification.

4.1.5 AD-94 Parts List

Ref No.	P/N	Descriptions	Qty
1	15101209	DC POWER SUPPLY*)	1
2	16802448	bracket	1
3	16359221	pole, 6x19	4
4	16359227	pole, 6x25	4
5	16145147-01	Front Panel	1
6	16498613-00	binding screw 3x6, black	16
7	16496057-00	washer, 3x6x0.35	16
8	13220350	rotary switch	1
9	16290960-01	knob, B-20B	1
10	13100961	connector 4RF	1
11	13180088	terminal, Ø12 REC (T-375)	1
12	13180089	terminal, Ø12 BLK (T-375)	1
13	16496266	flat washer 4x8x0.5	2
14	16496083	toothed washer, A4	2
15	16230340-00	name plate-D	1
16	16145149-00	Rear Panel	1
17	15922172-00	3-conductor cable cord set	1
18	16362182	cord stopper-L	1
19	16152585-00	Bottom Cover	1
20	16360640	rubber foot	4
21	16498580	pan head screw in 3-piece 3x8	4
22	16362294	cable tie	1
23	16152757-00	Top Cover	1
24	16362312	strap (A-84-1)	1
25	11193822	R, RD 1/4W 8.2k ohms	1
26	13199081	terminal, RED 3x68Round (171508-1)	7
27	13199126	terminal, YEL 4.34Round (35787)	2
28	13090219	tubing, V 1/16	0.1m A/R
29	13419021	photo diode	1
30	13010179	vynil wire 5010.18 WHT	0.6m A/R
31	13010181	vynil wire 5010.18 ORG	0.6m A/R
32	13010159	vynil wire 0.5SQ WHT	0.5m A/R
33	13010132	wire, 0.3 SQ RED	0.1m A/R
34	13010133	wire 0.3SQ ORG	0.5m A/R
35	13010136	wire 0.3SQ BLU	0.6m A/R
36	13010139	wire 0.3SQ WHT	0.5m A/R
37	13099905	wire tightener-A	2m A/R

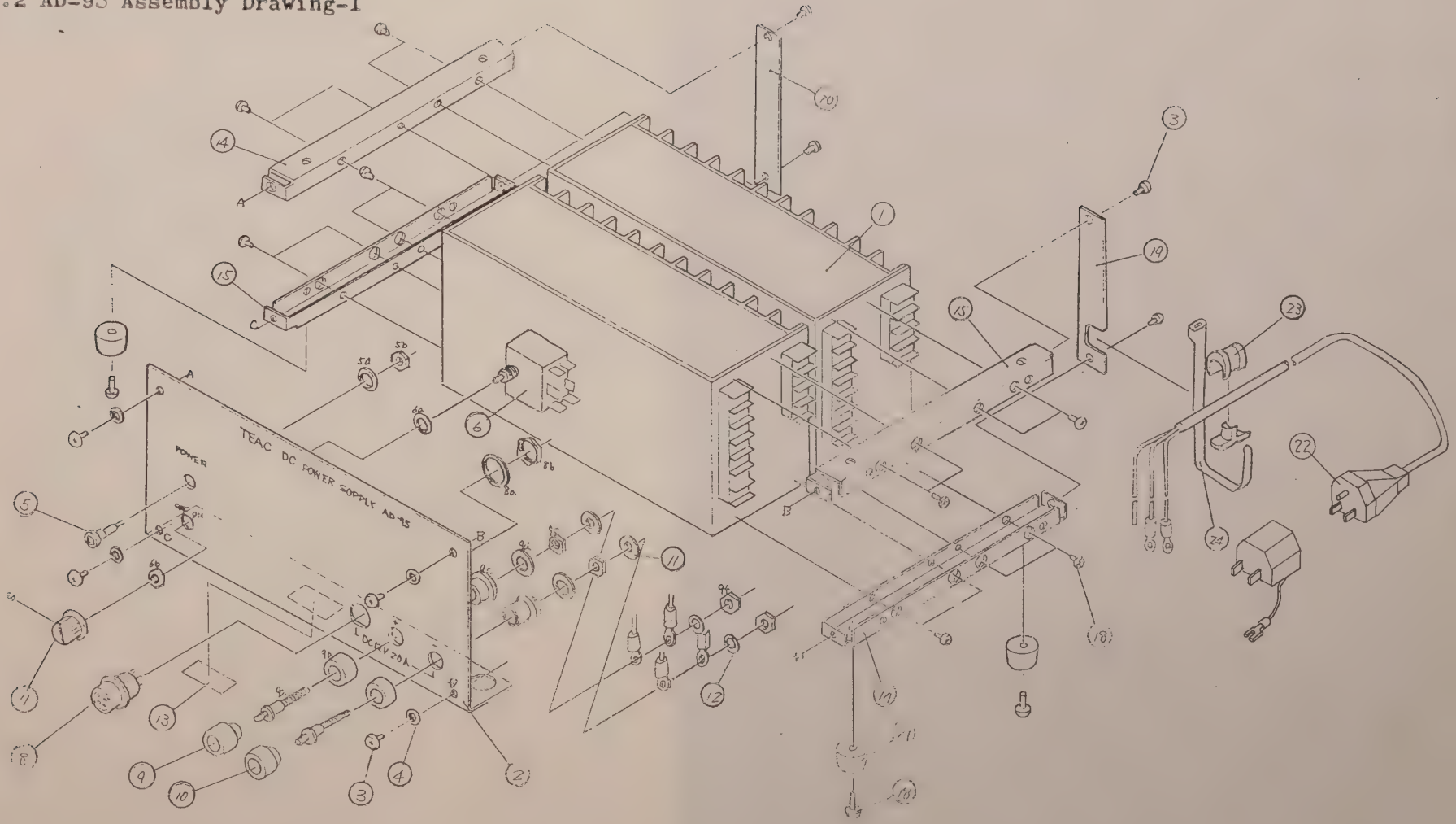
4.2 AD-95 Fower Unit (Output: DC 12V, 20A)

4.2.1 AD-95 Schematic

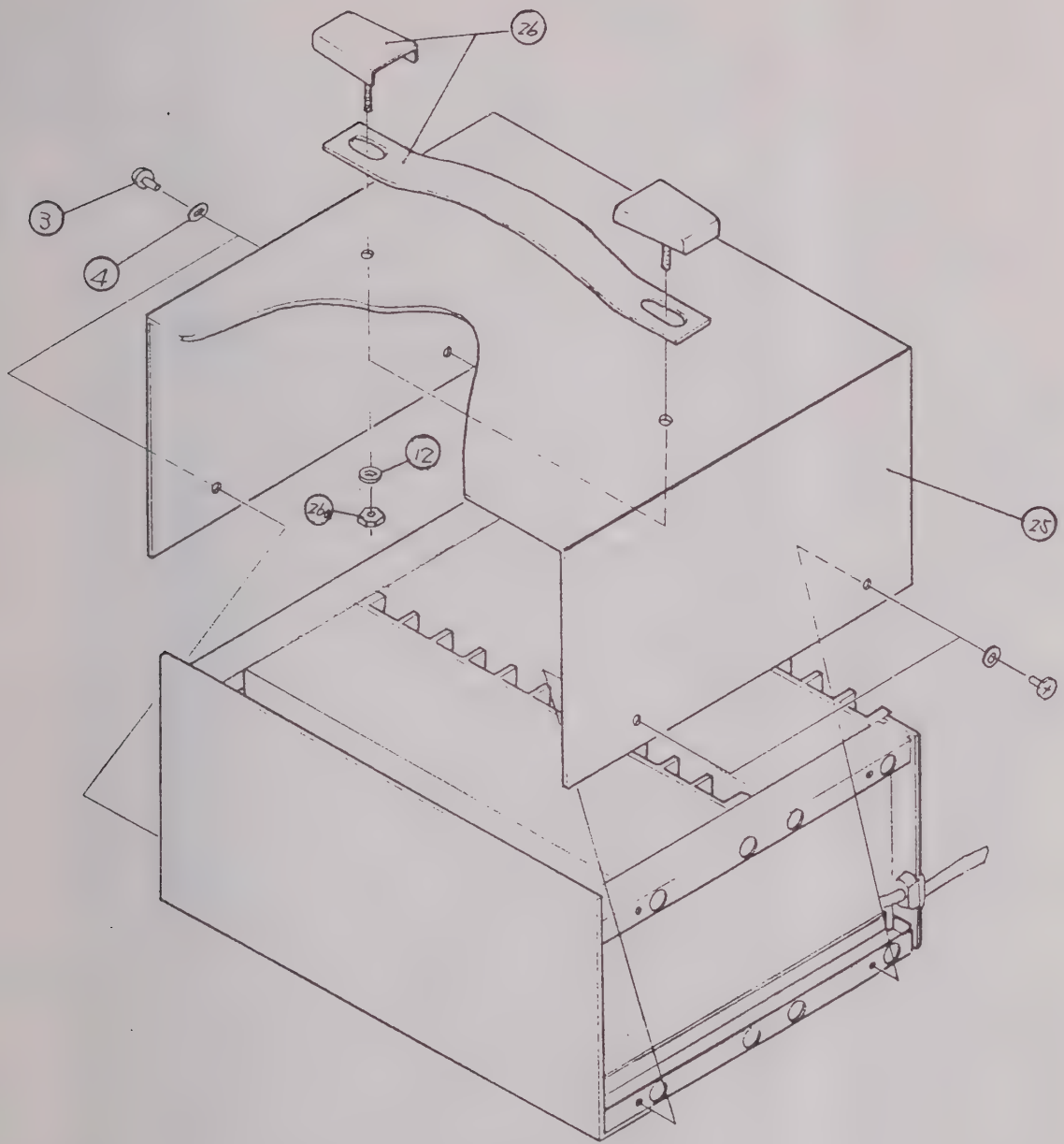


Refer also to pages 15,16 Wiring Destinations and Colour Coding List.

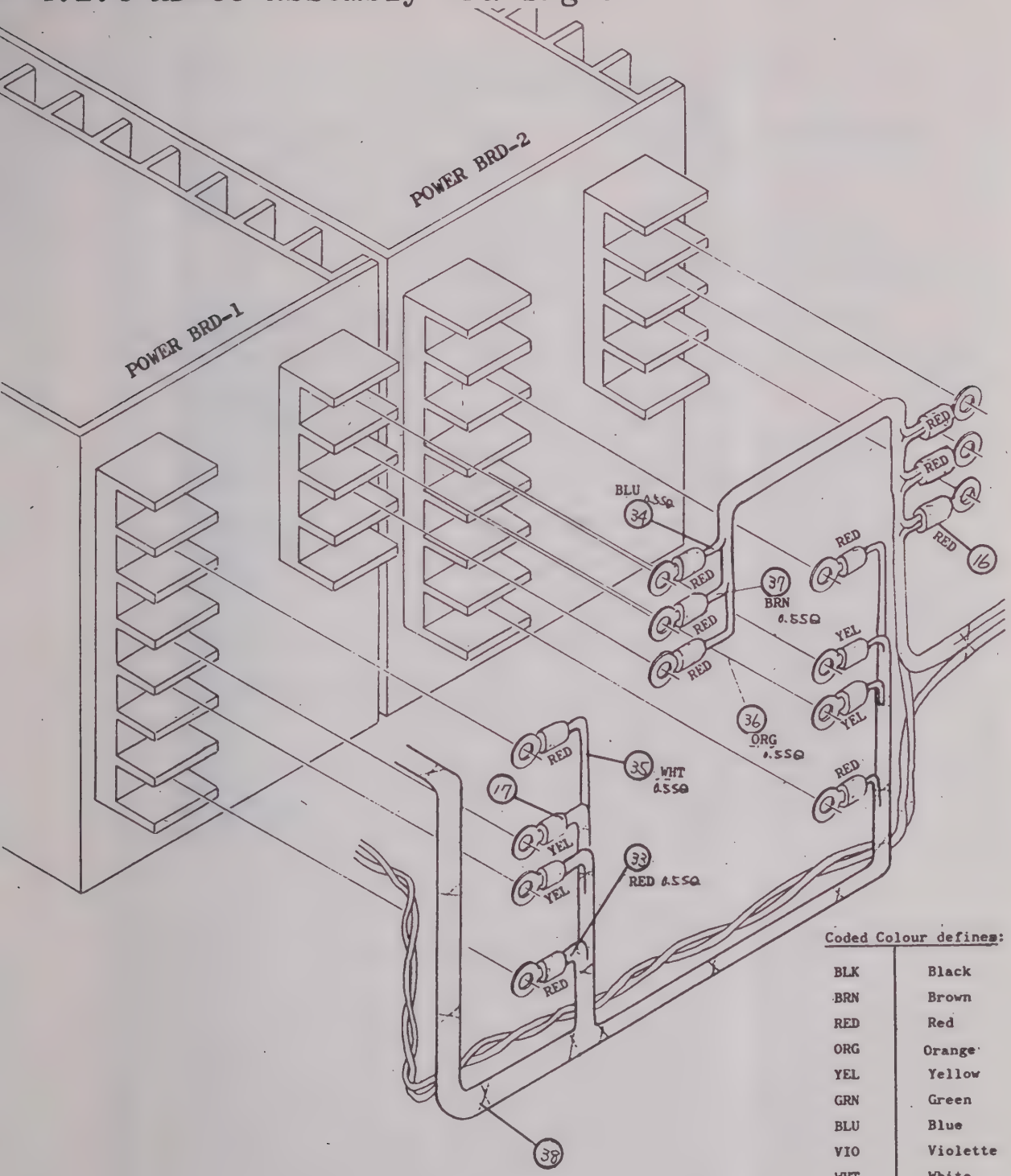
4.2.2 AD-95 Assembly Drawing-1



4.2.3 AD-95 Assembly Drawing-2



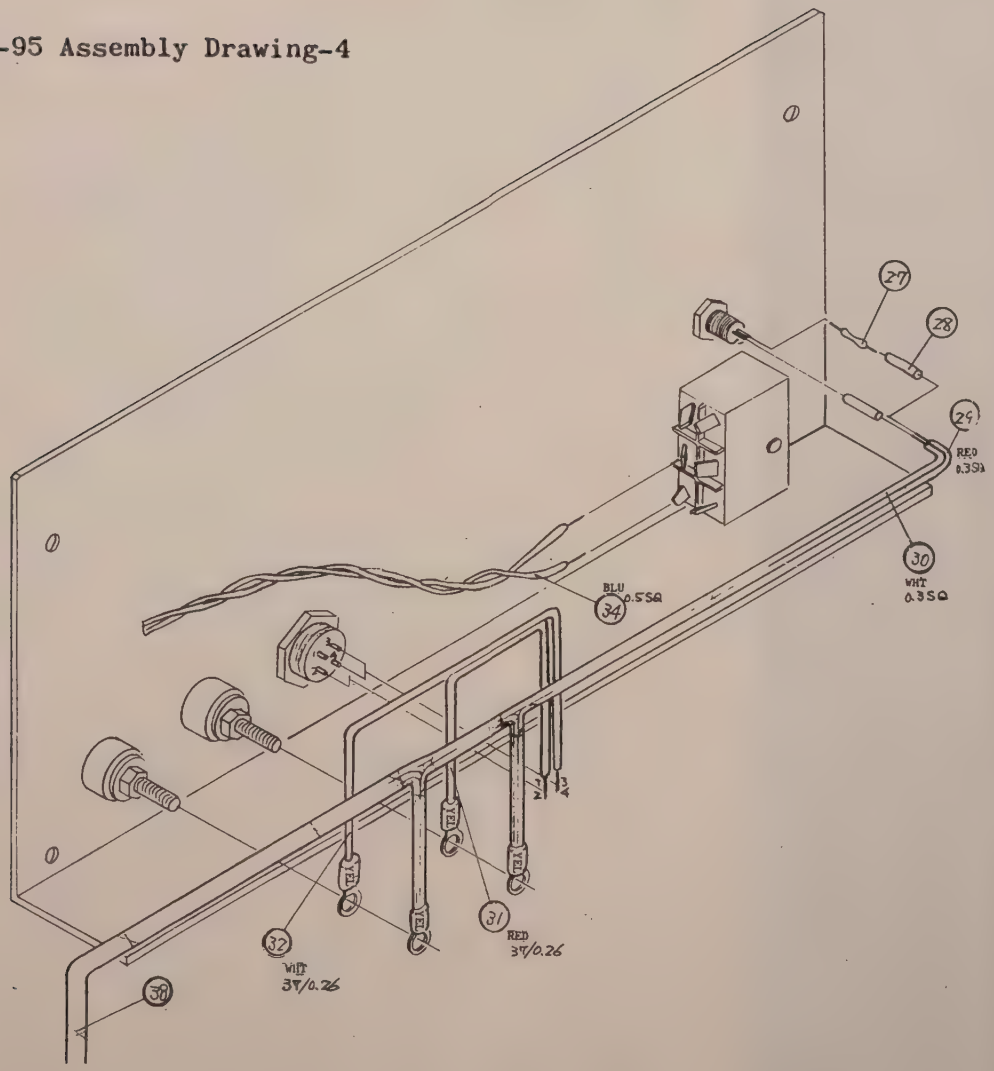
4.2.4 AD-95 Assembly Drawing-3



Coded Colour defines:

BLK	Black
BRN	Brown
RED	Red
ORG	Orange
YEL	Yellow
GRN	Green
BLU	Blue
VIO	Violette
WHT	White

4.2.5 AD-95 Assembly Drawing-4



WIRE ROUTING INSTRUCTIONS			
Originated from	wire diam	color code	destinations to
+V, POWER BRD-2	37/0.26	RED	+V, POWER BRD-1
+ pin, OUTPUT	37/0.26	RED	
	0.3SQ	RED	LED + via Resistor
	0.5SQ	RED	+RS, POWER BRD-1
+RS, POWER BRD-2	0.5SQ	RED	
+ pin, OUTPUT	37/0.26	RED	pins 1 & 2, OUTPUT connector
-V, POWER BRD-2	37/0.26	WHT	-V, POWER BRD-1
- pin, OUTPUT	0.3SQ	WHT	
	0.3SQ	WHT	LED -
	0.5SQ	WHT	-RS, POWER BRD-2
-RS, POWER BRD-2	0.5SQ	WHT	
- pin, OUTPUT	37/0.26	WHT	pins 3 & 4, OUTPUT connector
AC1, POWER BRD-2		BRN	POWER CABLE
	0.5SQ	BRN	AC1, POWER BRD-1
AC2, POWER BRD-2	05.SQ	BLU	AC2, POWER BRD-1
	0.5SQ	BLU	POWER SWITCH
ACG, POWER BRD-2		GRN	POWER CABLE
	0.5SQ	GRN	ACG, POWER BRD-1
POWER SWITCH		BLU	POWER CABLE

Coded Colour defines:

BLK	Black
BRN	Brown
RED	Red
ORG	Orange
YEL	Yellow
GRN	Green
BLU	Blue
VIO	Violette
WHT	White

*) Ordering for this should always be made as an assembly since its internal servicing must be done by TEAC Authorized Factory to meet the specification.

4.2.6 AD-95 Parts List

Ref#	P/N	Descriptions	Qty
1	15101209	DC POWER SUPPLY *)	2
2	16145148-01	Front Panel	1
3	16498613-00	binding screw, 3x6, BLK	16
4	16496057-00	washer, 3x6x0.35	12
5	13419021	photo diode	1
6	13220350	rotary switch	1
7	16290960-01	knob, B-20B	1
8	13100945	connector 4RF	1
9	13180090	terminal, ø16 RED (T-375)	1
10	13180091	terminal, ø16 BLK (T-375)	1
11	16496266	flat washer, 4x8x0.5	2
12	16496083	toothed washer A4	4
13	16230340-00	name plate-D	1
14	16802217-00	Bottom Cover (R)	1
15	16802218-00	Bottom Cover (L)	1
16	13199081	terminal RED 3.68 Round (31882)	10
17	13199126	terminal YEL 4.34 (35787)	8
18	16498580	pan head screw in 3-piece 3x8	20
19	16145150-00	Rear Panel (R)	1
20	16802216-00	Rear Panel (L)	1
21	16360640	rubber foot	4
22	15922172-00	3-conductor cable cord set	1
23	16862182	cord stopper-L	1
24	16362294	cable tie	1
25	16152584-00	Top Cover	1
26	16362312	strap (A-84-1)	1
27	11193822	R, RD 1/4W 8.2k ohms	1
28	13090219	tubing, V	0.06m
29	13010132	vynil wire 0.3SQ RED	0.3m
30	13010139	vynil wire 0.3SQ WHT	0.3m
31	13010387	wire, 37/0.26 RED, polynik	0.7m
32	13010395	wire, 37/0.26 WHT, polynik	0.7m
33	13010152	vynil wire 0.5SQ RED	0.5m
34	13010156	vynil wire 0.5SQ BLU	0.7m
35	13010159	vynil wire 0.5SQ WHT	0.6m
36	13010155	vynil wire 0.5SQ GRN	0.15m
37	13010151	vynil wire 0.5SQ BRN	0.15m
38	13099905	wire tightener (A)	1.5m

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